



**Government of Karnataka**

**DIRECTORATE & DEPARTMENT OF MINES AND GEOLOGY  
No.49, KHANIJA BHAVAN, SOUTH BLOCK, RACE COURSE ROAD,  
BANGALORE-560001.**

## **REQUEST FOR PROPOSAL**

**FOR SUPPLY OF 04 NUMBER OF ELECTRONIC TOTAL STATIONS,  
03 NUMBER OF DGPS AND 73 NUMBERS OF GPS.**

**JULY 2014**



- Note: 1. This uploaded documents is meant only for the information of the consent agencies.
2. The interested parties shall obtain in the original Tender document with authorized seal and signature of the department at the address mentioned in the tender advertisement
3. The Tender documents of those parties who have manually obtained the documents after paying the tender document fee of 2,500/- will only be allowed. Tender document submitted in any other way (downloaded document ,Photo Copies, etc,) will be summarily rejected.

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**SECTION - 1: LETTER OF INVITATION**

Bangalore

Date:

Department of Mines and Geology, invites sealed proposals from reputed Indian/ Foreign manufacturers or authorized agents/dealers/distributors of the manufacturers for the supply of Electronic Total Stations, DGPS and GPS. The detailed specifications of the equipments to be supplied are listed in Annexure-I,II and III of this Request for Proposal (RFP).

This RFP includes the following sections:

- Section 1 – Letter of Invitation
- Section 2 – Data Sheet (Information to the bidders)
- Section 3 – Technical Bid – Standard Forms
- Section 4 – Financial Bid – Standard Forms
- Section 5 – Other Terms & Conditions

The Technical & Financial Bid should be submitted in separate envelopes. (Which enclosed in a common sealed envelope) to dropped in the tender box kept in the store section of the DMG by Last date and time of submission of sealed tenders is 07-08-2014 at 5.00pm.

## SECTION -2: DATA SHEET

|      |                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                           |
|------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1  | Purpose of the Tender Document                                                                     | Procurement of Electronic Total Stations, DGPS and GPS.                                                                                                                                                                                                                                                                                                                                   |
| 2.2  | Cost of Tender Document                                                                            | The Tender Document is available for sale against a payment of Rs.2,500 (Rupees Two thousand five hundred only) through Demand Draft drawn in favor of 'The Director, Department of Mines and Geology, Bangalore' Payable at Bangalore.                                                                                                                                                   |
| 2.3  | The Names, Addresses, and telephone numbers of the contact officer/official of the Department are: |                                                                                                                                                                                                                                                                                                                                                                                           |
|      | Names and Designations                                                                             | Address                                                                                                                                                                                                                                                                                                                                                                                   |
|      | 1. Sri I.S. Sathish<br>Additional Director<br>Department of Mines and Geology                      | No,49, Khanija Bhavan,<br>South Block, Race Course<br>Road, Bangalore-560 001                                                                                                                                                                                                                                                                                                             |
|      | 2. Store Officer<br>4 <sup>th</sup> Floor, DMG<br>Bangalore                                        | 080-22384134                                                                                                                                                                                                                                                                                                                                                                              |
| 2.4  | Method of selection of the bidder                                                                  | Two bid proposal consisting of 'prequalification, Technical' & 'Financial bids of only technically qualified bidders' will be evaluated. **<br>** Prequalification of bidders would be done on the basis of compliance to the conditions in 2. 12. This will be followed by technical evaluation of the instruments.                                                                      |
| 2.5  | Calendar of events                                                                                 | Refer Table 2.1                                                                                                                                                                                                                                                                                                                                                                           |
| 2.6  | Language of proposal                                                                               | English                                                                                                                                                                                                                                                                                                                                                                                   |
|      | Currency                                                                                           | All prices should be quoted in Indian Rupees only. This is applicable even where the items are proposed to be supplied to the Department buy importing them from a foreign country into India.                                                                                                                                                                                            |
| 2.7  | Proposal validity period                                                                           | 180 days after the last date of submission.                                                                                                                                                                                                                                                                                                                                               |
| 2.8  | Number of copies required                                                                          | To submitted in duplicate                                                                                                                                                                                                                                                                                                                                                                 |
| 2.9  | EMD Amount                                                                                         | Bidder shall submit, along with their bids, Earnest Money deposit (EMD) of Rs.2,75,000/- (Rupees Two lakh seventy five thousand only). Through Demand Draft drawn in favor of 'The Director, Department of Mines and Geology, Bangalore' Payable at Bangalore.                                                                                                                            |
| 2.10 | Performance Bank Guarantee                                                                         | Performance Bank Guarantee @ 15% of the value of the contract to be submitted within 30 days of issue of letter of intent by the Department. In case the successful bidder fails to deliver the goods, the EMD and the performance Bank Guarantee will be forfeited. In case they are delivered late then, penalties will be deducted out of the payment and the EMD and performance Bank |

|      |                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |                                       | Guarantee will be returned after the supply of the goods. The performance Bank Guarantee should be of any National Bank valid for a period of 6 months from the date of letter of intent with a provision of its further extension/revalidation up to the period of one year from the date of completion site acceptance test or up to the warranty (including extended warranty) period, whichever is later. The specimen of performance Bank Guarantee would be provided to the successful bidder along with the issue of letter of intent. |
| 2.11 | Specification of items to be supplied | Please see the Annexure -I, II, and III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 2.12 | Eligibility Criteria                  | To be eligible for technical Evaluation, the following conditions should be satisfied by the bidder:<br>1. The bidder should be a Company registered under the Companies Act 1956 on or before April 1 <sup>st</sup> , 2014 and should have been in the business of supply of ETS, DGPS and GPS. (amongst any other survey instruments)                                                                                                                                                                                                       |
|      |                                       | 2. The bidder shall be a manufacturer or authorized agent/dealer/distributor of the manufacturer who has designed, manufactured, supplied, erected, commissioned, maintained Electronic Total Station, DGPS and GPS of the type and capacity required under this RFP to at least 3 different customers/projects in the last 3 years.                                                                                                                                                                                                          |
|      |                                       | 3. a) The bidder should have sold at least 300 Total Station, 100 DGPS for the last 3 years to various different customers. Out of these 300, 100 instruments there can be a variation of plus or minus 25 instruments in a year and plus or minus 10 instruments for the last three years.<br>b) Bidder should quote the rate of unit cost for all the three items, partly quotations will be summarily rejected.                                                                                                                            |
|      |                                       | 4. The electronic Total Stations, DGPS and GPS should have been in successful operation in other National/International Scientific/ Government organizations for two years on the date of bid opening (certified documents obtained from end-users to be attached )                                                                                                                                                                                                                                                                           |
|      |                                       | 5. The manufacturer (OEM) of ETS, DGPS and GPS should be manufacturing and supplying ETS, DGPS and GPS equipments atleast for 5 (Five) years as on this date.                                                                                                                                                                                                                                                                                                                                                                                 |
|      |                                       | 6. The bidder/OEM should have an annual average turnover of not less than Rs.4 Crores each in last 3 financial year of 2011-12, 2012-13, 2013-14 from the sales & service of electronic ETS, DGPS and GPS (any other survey related equipments) and should be a profit making entity.                                                                                                                                                                                                                                                         |
|      |                                       | 7. A statement of average turnover from the sales and service of ETS, DGPS and GPS in last 3 financial years of 2011-12,                                                                                                                                                                                                                                                                                                                                                                                                                      |

|      |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |                               | 2012-13, 2013-14 signed by the company's auditor should be enclosed as supporting document.                                                                                                                                                                                                                                                                                                                                         |
|      |                               | 8. The Department will intimate the bidders about the requirements of Technical Demonstration only after getting through the technical bid. Necessary supporting document (i.e., certificate of incorporation, audited financial statements, etc.,) should be enclosed in proof of satisfying the above eligibility criteria.                                                                                                       |
| 2.13 | Evaluation Procedure          | The bid evaluation will be done in three steps as mentioned below; Evaluation of pre- qualification & Technical proposal to verify adherence to eligibility criteria mentioned above<br>Evaluation of financial Proposals of those bidders who successfully qualify the technical evaluation (i.e., bidders who meet the eligibility criteria specified above), and short listing of bidder who quotes the lowest price(L1 bidder). |
| 2.14 | Proposal Submission procedure | 1. Proposals should strictly be prepared in the formats as provided in this RFP. Otherwise the bids will be summarily rejected.<br>2. Technical and Financial Bids should be submitted in tender.                                                                                                                                                                                                                                   |

**Table 2.1 – Calendar of Events**

| Sl. No. | Events                                                        | Date                     | Time                                         |
|---------|---------------------------------------------------------------|--------------------------|----------------------------------------------|
| 1.      | Date and time of issue of tender document                     | 19.07.2014 to 06.08.2014 | 10.30 am to 5.00 pm on all working days only |
| 2.      | Last date and time for receipt of written queries by bidders  | 28.07.2014               | 5.00 pm                                      |
| 3.      | Place time and date of Pre-bid meeting                        | 30.07.2014               | 11.00 am                                     |
| 4.      | Clarifications to bidder queries                              | 02.08.2014               | 5.00 pm                                      |
| 5.      | Last date and time for submission of tender document          | 07.08.2014               | 5.00 pm                                      |
| 6.      | Date and time of opening of technical bid                     | 08.08.2014               | 11.00 am                                     |
| 7.      | Demo of instruments (Only by technically qualifying bidders ) | 11.08.2014 to 14.08.2014 | 11.00 am onwards                             |
| 8.      | Date and time of opening of Financial bid                     | 16.08.2014               | 11.00 am                                     |

**Table 2.2 – Items to be supplied**

| Sl. No. | Item Name                | Item Specification | Quantity to be supplied (numbers) |
|---------|--------------------------|--------------------|-----------------------------------|
| 1.      | Electronic Total Station | Refer Annexure-1   | 04                                |
| 2.      | DGPS                     | Refer Annexure-2   | 03                                |
| 3.      | GPS                      | Refer Annexure-3   | 73                                |

### SECTION - 3: TECHNICAL BID - STANDARD FORMS

Proposal format & submission procedure: Technical Proposal should consist of the following forms.

| Sl.No. | Item                                                                               | Refrence |
|--------|------------------------------------------------------------------------------------|----------|
| 1.     | General information about the bidder                                               | Form 1   |
| 2.     | Financial information about the bidder                                             | Form 2   |
| 3.     | Past experience of the bidder in supply of Electronic Total Stations, DGPS and GPS | Form 3   |
| 4.     | Statement of deviations                                                            | Form 4   |

#### Important Notes:

1. The Technical Bid should be submitted strictly in the formats specified in this RFP.
2. Along with the Proposal, the bidder is required to submit a copy of this RFP signed on every page. All supporting documents required for the submission of Bid shall be duly certified and attested. Otherwise, the proposal would be summarily rejected.
3. The bid shall be signed by the bidder or a person or persons duly authorized to bind the bidder to the Contract. The letter of authorization shall be indicated by written power-of-attorney, accompanying the bid. The person or persons signing the bid shall initial all pages of the bid, except for un-amended printed literature.
4. The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the bidder, in which case the person or persons signing the bid shall initial such corrections.
5. Bidder's Technical Bid should contain the following sections:
  - a. Introduction
  - b. General information about the bidder (in Form 1)
  - c. Financial information about the bidder (in Form 2)
  - d. Reconfirmation by the bidder on acceptance of the following important terms & conditions (bidder may explain these & other terms in more detail)
    - i. Inspection
    - ii. Warranty
    - iii. Guarantee
    - iv. Maintenance

- v. Training
  - vi. After sales support
  - vii. Validity of offer
  - viii. Penal clauses
  - e. Past experience of the bidder in supply of Electronic Total Stations, DGPS and GPS (in Form 3)
  - f. Statement of deviations in (Form 4)
  - g. Details of the 3 different customers/projects as required in clause 2.12 of this RFP.
  - h. Any other information that the bidder would like to highlight (e.g., how the equipment are proposed to be sourced, technical comparison with peers in the market, etc.,)
  - i. Miscellaneous attachments (e.g., Power of Attorney)
6. The bidder shall furnish details of supplies made in the last 3 years to the Government Organizations in India along with the user's certificate regarding satisfactory functioning of, and satisfactory maintenance of the equipment/instrument, as specified in clause 2.12(4)
7. The bidder should also furnish the following confirmations in this Technical Bid:
- a. In a separate sheet, duly signed, full information in respect of the output that the bidder obtained from the machine offered; and also that bidder guarantees for the performance of the machine under the normal conditions and also that bidder will demonstrate guaranteed output after installation and use of the machine.
  - b. Attach lists duly signed, for such spare parts and tools as are absolutely essential for proper maintenance and operation of machine for a period of Ten years (in the case of Electronic and Optical Spare Parts, software's and other related peripherals of the equipments) and 10 years (in the case of Electronic and Mechanical Spare Parts) giving full particulars of the spare parts and tools with the price of each spare part and tool separately.
  - c. All the accessories must be from the original manufacturer only.
  - d. Bidders who claim to be authorized suppliers/ agents of OEMs should submit an authorization from the OEM to that effect.
  - e. Confirmation that the bidder has adequate servicing and spare parts facilities in

Bangalore in respect of the equipments/ instruments tendered for or that bidder will arrange to provide such facilities simultaneously with the supply of the equipments/instruments.

- f. Confirmation from manufacturer that necessary maintenance of equipments/instruments and spare parts will be made available for life of the machine on a continuous basis.
  - g. Confirmation that the contractor/supplier shall be responsible for the correct supply of the stores being ordered and shall replace the same free of cost if found not conforming to the required specifications or incomplete in any performance. The spares shall be guaranteed for interchangeability and performances. The changed parts if any will be guaranteed for correctness and interchangeability.
8. Indian Agents submitting their offer on behalf of their Foreign Principals are required to furnish the following information/documents along with the Technical Bid.
- a. Authority letter from their Foreign Principals
  - b. Warranty Certificate from their Foreign Principals (Annexure -IV).
  - c. Attested copy of latest Income Tax Clearance Certificate
  - d. Xerox copy of latest Central sales Tax Certificate.
  - e. Technical brochure literature / catalogue of the Main Instrument / Equipment quoted for

9.

| <b>Form 1: General Information of the Bidder</b>               |  |                                  |  |
|----------------------------------------------------------------|--|----------------------------------|--|
| Name                                                           |  |                                  |  |
| Address                                                        |  |                                  |  |
| Telephone                                                      |  | Fax                              |  |
| E-mail                                                         |  | website                          |  |
| Date of Incorporation                                          |  | Date of commencement of business |  |
| Number of Employees as on 31-03-2014                           |  |                                  |  |
| Details of Authorized Person (please attach Power of Attorney) |  |                                  |  |
| Name                                                           |  |                                  |  |
| Designation                                                    |  |                                  |  |
| Address                                                        |  |                                  |  |
| Telephone                                                      |  | E-mail                           |  |
|                                                                |  |                                  |  |
|                                                                |  |                                  |  |

**Form 2: Financial Information of the Bidder/OEM.**

| Years              | FY 2011-12 |                                                     | FY 2012-13 |                                                    | FY 2013-14 |                                                    | Average annual Turnover |                                                    |
|--------------------|------------|-----------------------------------------------------|------------|----------------------------------------------------|------------|----------------------------------------------------|-------------------------|----------------------------------------------------|
| Particular         | Total      | From Sale and Service of ETS, DGPS & GPS Equipments | Total      | From Sale and Service of ETS, DGPS& GPS Equipments | Total      | From Sale and Service of ETS, DGPS& GPS Equipments | Total                   | From Sale and Service of ETS, DGPS& GPS Equipments |
| Turnover (Rs.'000) |            | ETS                                                 |            | ETS                                                |            | ETS                                                |                         | ETS                                                |
|                    |            | DGPS                                                |            | DGPS                                               |            | DGPS                                               |                         | DGPS                                               |
|                    |            | GPS                                                 |            | GPS                                                |            | GPS                                                |                         | GPS                                                |
|                    |            | Total                                               |            | Total                                              |            | Total                                              |                         | Total                                              |
| Profit (Rs.'000)   |            |                                                     |            |                                                    |            |                                                    |                         |                                                    |

A statement of turnover from the sales and service of ETS, DGPS and GPS equipments signed by the company's auditor should be enclosed as supporting document.

**From 3: Past Experience in sales and service of ETS, DGPS and GPS and survey related equipments as stipulated in the serial number 2.12 on eligibility criteria.**

|    |                                                                                   |                   |
|----|-----------------------------------------------------------------------------------|-------------------|
| 1. | Customer Name/<br>Government Department                                           |                   |
| 2. | Name of the contact person and contact details (address phone number & e-mail ID) |                   |
| 3. | Details of Equipment Supplied & Quantity**                                        |                   |
|    | Sl. No.                                                                           | Item Name         |
|    | 2011-12                                                                           | 2012-13           |
|    | 2013-14                                                                           | Quantity Supplied |
|    | 1.                                                                                | ETS               |
|    | 2.                                                                                | DGPS              |
|    | 3.                                                                                | GPS               |
| 4. | Start Date/End Date of Supply                                                     |                   |
| 5. | Total cost of the Equipment Supplied by the Bidder                                |                   |
| 6. | Maintenance cost for above equipment Start Date to End Date                       |                   |

**Important Notes:**

\*The bidders need to provide copies of at least 3 (THREE) Purchase Orders for each of the equipments i.e., ETS, DGPS and GPS of value as indicated in the RFP, Maintenance Contract, Order Completion Certificates & letters of satisfactory maintenance. The period of supply should be from April 1<sup>st</sup>, 2011 to March 31<sup>st</sup>, 2014. Ref to 2.12(3)

\*\* Please enclose technical leaflet /brochure / literature.

| <b>Form 4: Format for Statement of Deviation(s) from Scheduled Requirements</b> |                                  |                           |                  |
|---------------------------------------------------------------------------------|----------------------------------|---------------------------|------------------|
| Sl. No                                                                          | Reference of Clause No. & Pg. No | Deviation in the Proposal | Reasons in brief |
|                                                                                 |                                  |                           |                  |

## **SECTION - 4: FINANCIAL BID - STANDARD FORMS**

### **IMPORTANT NOTES:**

Bidders are advised to carefully consider the following points before finalizing their Financial Bids.

1. A Bid to supply quantities lesser than those mentioned below will be declared invalid.
2. The rates quoted should be inclusive of onsite installation and training charges. The bidder should also consider the expenses that will be incurred on training.
3. The bidder should provide the technical details of all the parts of the equipments/instruments.

The Financial Bid should be prepared in the following format & sealed in a separate envelop.

| <b>Format for Financial Bid – Electronic Total Stations, DGP Sand GPS</b> |                          |                                   |                                                |                                                 |
|---------------------------------------------------------------------------|--------------------------|-----------------------------------|------------------------------------------------|-------------------------------------------------|
| Sl. No                                                                    | Item Name                | Quantity to be Supplied (numbers) | Unit Price (in Rupees ) Inclusive of all taxes | Total Price (in Rupees ) Inclusive of all taxes |
| 1.                                                                        | Electronic Total Station | 04                                |                                                |                                                 |
| 2.                                                                        | DGPS                     | 03                                |                                                |                                                 |
| 3.                                                                        | GPS                      | 73                                |                                                |                                                 |

### **Note:**

- 1.The method of Selection: LEAST COST (LC) method.
- 2.The Price should be inclusive of all duties, taxes, insurance, freight loading & unloading charges, handling charges, and other charges/levies as applicable.
3. All the duties that would be waived if the department gives Customs Duty Certificate to be indicated separately in the financial bid. If the department gives customs duty certificate the lowest bid would be calculated on the net cost excluding customs duty, otherwise cost including customs duty will determine lowest bid.

### **NOTE:**

- o The instruments should have been sold in the past three years in sufficient numbers.
- o Any invoice not backed by delivery challan and completion certificate will not be accepted. It was also made clear to the vendors that in case of doubt, the Department would either resort to verification with the other clients or would demand credentials of the bidders to be certified by clients claimed by the bidders.

## SECTION – 5: OTHER TERMS & CONDITIONS:

Following are the Departmental terms & conditions applicable during the bid process & after selection of successful bidder.

- a. Decrease/Increase in quantity to be supplied:** The total number of equipments to be produced May vary according to the available budget and cost of procurement. Normally no item or quantity will be cancelled or reduced/increased within the delivery period. But the Department reserves the right to cancel any item or reduce any quantity from the purchase order, if the stores are not supplied within the original delivery period. The Departments also reserves the right to increase/decrease the quantity within the original delivery period or during the finalisation of the contract.
- b. Shipping location:** The equipment have to be supplied to the following address:

| Sl. No. | Item Name                | Destination                         | Number of equipments |
|---------|--------------------------|-------------------------------------|----------------------|
| 1.      | Electronic Total Station | Store Officer Head office Bangalore | 04                   |
| 2.      | DGPS                     | Store Officer Head office Bangalore | 03                   |
| 3.      | GPS                      | Store Officer Head office Bangalore | 73                   |

- c. Penalties for delay in supply of equipments:** The equipments tendered for, should be supplied within 30 days, from the date of release of Purchase Order by the Department. For the delays, which are solely attributable to the bidder, the Department would levy a penalty of 3% of Purchase Order per week on the successful bidder. If the delay exceeds 4 weeks the penalty shall be 5% of Purchase Order per week and if delay exceeds 10 weeks, the Purchase Order may be cancelled & the EMD/performance Bank guarantee amount would be adjusted against the penalty.

- d. Payments: Payments to the party will be made as follows:**

The successful bidder has to provide the Bank Account Details for Payment; payment will be done only through treasury cheque. 100% payment shall be made within 60 days of completion of acceptance testing of the equipment.

The vendor to furnish 3 years unconditional warranty from the OEM. This warranty will

not be affected; even if the supplier's bank guarantee is forfeited for default in execution of warranties. In other words the OEM would stand guarantee for the repair/service of the instrument even if the local supplier is not in a position to repair/service the instrument. The warranty from OEM to include the transportation cost from the site to the authorized service center and back to the site, in case the local supplier has not discharged his contractual obligation within the timelines as per the RFP.

The vendor to furnish 3 years unconditional warranty from the OEM. This warranty will not be affected; even if the supplier's bank guarantee is forfeited for default in execution of warranties. In other words the OEM would stand guarantee for the repair/service of the instrument even if the local supplier is not in a position to repair/service the instrument. The warranty from OEM to include the transportation cost from the site to the authorized service center and back to the site, in case the local supplier has not discharged his contractual obligation within the timelines as per the RFP.

In addition, the successful bidder shall provide a bank guarantee of 15% of the value of the total contract valid for three years. The bidder to give bank guarantee in the denominations of 5%, 2% and 8% for a total of 15 % value. The 5% Bank Guarantee will be valid for 1 year, the 2% Bank Guarantee will be valid for 2 years, and the 8% Bank Guarantee will be valid for 3 years. At the end of 1st year the bank guarantee for 5% will be returned, and at the end of 2nd year the bank guarantee for 2% will be returned and the at the end of 3rd year the bank guarantee for 8% will be returned, in case there is no complaint on repair / service. In case of any penalties, that need to be imposed as per the RFP, the same will be deducted and the Bank Guarantee will be returned at the end of first year. So also, at the end of the second year penalties if any, as specified in the RFP will be deducted and the Bank Guarantee will be returned, and at the end of the third year penalties if any, as specified in the RFP will be deducted and the Bank Guarantee will be returned. The penalty provisions as mentioned in Section 5 (1) and (d) will continue.

In case the penalty amount is more than the Bank guarantee amount, then the bank guarantee will be adjusted first and a notice to pay the remaining amount will be served to the supplier.

In case the supplier fails to pay the remaining penalty amount after bank guarantee is adjusted,

and after serving of notice, the department will approach the civil court for recovery.

City of Bangalore will be the jurisdiction for any civil dispute.

THE SUCCESSFUL BIDDER SHOULD HAVE OR SHALL ESTABLISH A SERVICE CENTRE AT BANGALORE WITHIN 3 MONTHS.

- e. Proposal preparation costs:** The bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by the department to facilitate the evaluation process, and in negotiating a definitive agreement and all such activities related to the bid process. This RFP does not commit the department to award a contract or to engage in negotiations. Further, no reimbursable cost may be incurred in anticipation of award.
- f. Proposal Validity:** The proposals shall be valid for a period of three (3) months from the date of opening of the proposals. A proposal valid for a shorter period may be rejected as non-responsive.
- g. Amendments:** At any time prior to the deadline for submission of proposals, the department, for any reason, may modify the RFP by amendment notified in writing or by fax or email to all bidders who have received this RFP and such amendment shall be binding on them. The department, at its discretion, may extend the deadline for the submission of proposals.
- h. Prices:** The department reserves the right to procure the components/services listed in this RFP in whole or in part. No adjustment of the contract price shall be made on account of any variations in costs of labor and materials or any other cost component including any tax or statutory duty affecting the total cost in fulfilling the obligations under the contract. The contract price shall be the only payment, payable by the department to the successful bidder for completion of the contractual obligations, subject to the terms of payment specified in the contract. The price should be inclusive of all duties, taxes, and insurance, freight loading & unloading charges, handling charges, out of pocket expenses & other levies as applicable. The prices should be quoted in INR (Indian Rupees) irrespective of the country

of sourcing. In case of discrepancy between the amounts mentioned in figures and in words, the amount whichever is less shall govern. In case of discrepancy between the total cost and unit cost, the unit cost will prevail.

- i. Packaging:** The items tendered are required to be securely packed as per B.I.S. (ISI) standard trade practices (for domestic sourcing)/ international standard trade practices (for international sourcing) to avoid damages to the consignment in transit.
- j. Insurance:** The consignment is required to be dispatched to the specified shipping location, duly insured for transit insurance for all risks from the consigner's Warehouse to the consignee's Warehouse, till the completion & acceptance of erection/installation of the main Equipment / Instrument.
- k. Transportation:** The transportation charges should be pre-paid for delivery of consignment to the consignee on 'Door Delivery' basis.
- l. Inspection of Supplies:** Preliminary inspection of the stores shall be carried out by the supplier, (i.e., successful bidder on whom a Purchase Order is placed by the Department), at the factory before dispatch. The final joint inspection will be carried out at the consignee's site after receipt of the consignment. In case of defective supply due to latent manufacturing defects, the same has to be removed and replaced at the supplier's cost. All the expenses incurred in replacement shall be borne by the supplier.
- m. Installation & Training:** The successful bidder would be required to install the equipment at the location specified at Section 5 (b) of this RFP. He should also provide 'in-depth functional (theoretical and practical) training, and basic repair & maintenance related training' to employees as specified by the Department.

The employees would be nominated by the Department, and training to be provided in the locations which will be specified by the department. The Department estimates the training efforts of a minimum 10 (TEN) working days. The bidders should consider these factors at the time of finalizing their Financial Bids. The rates quoted by the bidders should be inclusive of installation & training charges. The selected agency need to train the candidates at two (2) Zonal offices viz Mysore and Bellary apart from Bangalore ie. Head Office.

- n. Repairs & Maintenance:** The supplier should provide comprehensive warranty for the

equipments (as per Section -5 Clause-d) for three years at no extra cost. The supplier shall have to support the equipments after three years also for at least next seven (7) years at the mutually agreed price if so required by the department. The proposal of the bidders should explain in detail the repairs & maintenance facilities that would be made available to the Department by the bidder.

- o. Force Majeure :** 'Force Majeure' means events such as but not limited to acts of God not confined to the premises of the supplier claiming the force Majeure, flood, drought, lightning or fire, earthquakes, strike, lock-outs beyond its control, labour disturbance not caused at the instance of the supplier claiming Force Majeure, acts of government or other competent authority, war, terrorist activities, military operations, riots, epidemics, civil commotions etc. No failure, delay or other default of any contractor or sub-contractor of the supplier shall entitle the supplier to claim Force Majeure under this Article.

The supplier seeking to rely on force Majeure shall prove that Force Majeure Conditions indeed exist and promptly, within 2 days, notify the Department of the occurrence of a Force Majeure event as a condition precedent to the availability of this defense with particulars detail in writing and shall demonstrate that it has and is taking all reasonable measures to mitigate the events of Force Majeure. In the event the Force Majeure substantially prevents, hinders or delays the supplier's performance of his obligations for a period in excess of 5 days, the Director DMG may declare that an Emergency exists. The Director DMG will issue a notice to the Supplier to perform his obligations within the time prescribed in the notice. In the event that the supplier is not able to perform his obligations within the time provided in the notice. The Director DMG may terminate the Agreement and/or obtain the item/items from an alternate supplier. Unless otherwise directed by the Department in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

**Termination:** The Department may at any time terminate the Contract by giving written notice to the Supplier, without compensation to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or effect any right of action or remedy which has accrued or will accrue thereafter to the Department.

- p. Disqualifications:** The proposal is liable to be disqualified in the following cases or in case bidder fails to meet the bidding requirements as indicated in this RFP:

- i. Proposal not submitted in accordance with this RFP.
- ii. During validity of the proposal, or its extended period, if any, the bidder increases his

quoted prices.

- iii. The bidder qualifies the proposal with his own conditions.
- iv. Proposal is received in incomplete form.
- v. The bidder should mandatorily fill the columns regarding compliance and deviations if any.
- vi. Proposal is received after due date and time.
- vii. Proposal is not accompanied by all requisite documents
- viii. Information submitted in technical bid is found to be misrepresented, incorrect or false, accidentally, unwittingly or otherwise, at any time during the processing of the contract (no matter at what stage) or during the tenure of the contract including the extension period if any.
- ix. Financial Bid is enclosed with the same envelope as Technical Bid.
- x. Bidder tries to influence the proposal evaluation process by unlawful means at any point of time during the bid process
- xi. In case any one party submits multiple proposals or if common interests are found in two or more bidders, the bidders are likely to be disqualified, unless additional proposals/bidders are withdrawn upon notice immediately.

In case the terms & conditions of the contract applicable to this invitation to tender are not acceptable to any bidder, he should clearly specify any deviation; in the format appended to this RFP (refer Form 4).

- q. Service Manual:** Service Operation Manual will have to be provided with the instrument.

## ANNEXURE-I

### TECHNICAL SPECIFICATIONS FOR TOTAL STATION

#### 1"ACCURACY ELECTRONIC TOTAL STATION

| DESCRIPTION                                                                               | SPECIFICATIONS                                            |
|-------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| ANGLE MEASUREMENT<br>Angular Accuracy<br>( Standard Deviation )                           | 1" or better                                              |
| Least Count                                                                               | 0.1 Sec or better                                         |
| Automatic Level<br>Compensator<br>Type : Dual-axis Compensator<br>with a working range of | + / - 4 Mins or better with quadruple Axis compensation   |
| Telescopic Magnification                                                                  | 30X or better                                             |
| DISTANCE MEASUREMENT<br>MODE                                                              | With Prism and<br>Non Prism Measurement mode              |
| LASER SOURCE FOR<br>DISTANCE MEASUREMENT                                                  | Class 3 Laser                                             |
| MEASURING TIME                                                                            | 1 - 2 Sec                                                 |
| DISTANCE ACCURACY<br>With prism                                                           | (+ / - 1 mm + 2 ppm) mm                                   |
| Without prism                                                                             | (+ / - 2 mm + 2 ppm) mm upto 500 meter                    |
| DISTANCE MEASUREMENT<br>RANGE                                                             | Under Normal Atmospheric Condition i.e. 20 Kms Visibility |
| With Single Prism                                                                         | 5000 meters or better                                     |
| Without Prism Range                                                                       |                                                           |
| Kodak Grey 18 %                                                                           | 300 Meters or better                                      |
| Kodak Grey 90 %                                                                           | 900 Meters or better                                      |
| Instrument Tribrach                                                                       | Detachable tribrach for traversing application            |

|                  |                                                                                                              |
|------------------|--------------------------------------------------------------------------------------------------------------|
| POWER SUPPLY     | Rechargeable Batteries                                                                                       |
| Internal Battery | Rechargeable Li-ion internal batteries<br>( 1 No + 1 No additional )<br>Working time upto 6 hrs each minimum |

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                             | ( total capacity 12 hrs min for 2 batteries )                                                                                                                                                                                                                                                                                                                                                                                                     |
| Charger for above Batteries with cables     | 1 Set                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| External Battery Connectivity               | Instrument should be able to operate on external 6V battery , necessary original battery cables to be provided                                                                                                                                                                                                                                                                                                                                    |
| Operating Temperature                       | -20 deg. C to + 50 deg. C or better                                                                                                                                                                                                                                                                                                                                                                                                               |
| Clamps & Slow Motion Drives                 | Friction Clamp with endless slow motion for fine movement of telescope                                                                                                                                                                                                                                                                                                                                                                            |
| Plummet                                     | Inbuilt laser plummet                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Dust and Water Proof                        | IP 54 standard                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Prism Positioning Light                     | Track light / Guide light preferred in the instrument for fast stake out operation and signaling                                                                                                                                                                                                                                                                                                                                                  |
| Prism Height                                | Automatic change of signal (prism) height with change from IR to DR mode in Instrument.                                                                                                                                                                                                                                                                                                                                                           |
| Data Downloading                            | From suitable data storage device to computer.<br>Instrument should have facility to connect USB drive ( pen drive) or Card Memory or a separate controller.                                                                                                                                                                                                                                                                                      |
| Instrument Control Unit / Keyboard, Display | -Windows CE.NET color controller, Touch screen having front light illumination with passive touch screen works with stylus or finger or separate wireless controller should be provided for this.<br>-Display unit should be day light readable in bright outdoor atmospheric conditions<br>-Control Unit should have both Touch Screen and hard Key pad operation<br>-Color graphical display with identical keyboard and display on both sides. |
| Communication Port                          | RS 232 Port with<br>Minimum two of the below communication port should be available in the instrument<br>Serial/ USB/ Ethernet/Memory Card Slot/ Bluetooth                                                                                                                                                                                                                                                                                        |
| Instrument Memory                           | Internal 128MB or better using controller or instrument<br>External – Card Memory/USB drive with total memory storage capacity of 1 GB or better with facility to log data directly to external memory.                                                                                                                                                                                                                                           |
| Controller Software                         | Software should be able to support data collection, feature coding, COGO functions, should be able to generate plots, should be able to do sub-division of plots, should support active DXF maps as background files, should be able to link ASCII files with graphic display of measured points & points from the linked file                                                                                                                    |
| Survey Software                             | Software capable of generating<br>- Automatic Drawing Generation from feature codes<br>- Area<br>- Volume<br>- 3 Dimensional View<br>- Generation of formats to Export to third party software.                                                                                                                                                                                                                                                   |

**ANNEXURE-II**

**TECHNICAL SPECIFICATION FOR SURVEY GRADE  
PROFESSIONAL GNSS SYSTEM**

**a. Specification for Base station :-**

| SI NO:     | CHARACTERISTICS                  | SPECIFICATION                                                                                                                                                                                            |
|------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b>   | <b>Measurement specification</b> |                                                                                                                                                                                                          |
| 1.1        | Satellite Tracking               | Should be capable of tracking GPS L1 C/A code, L1/L2 full cycle carrier, L2C and GLONASS L1, L2 and capable for the upgradation to Galileo                                                               |
| 1.2        | No of channels                   | 120 channels with Gagan capable and capable of tracking 60 satellite simultaneously                                                                                                                      |
| 1.3        | Measuring Mode                   | Static, stop and Go                                                                                                                                                                                      |
| 1.4        | Measurement technology           | High precision multiple correlator for GNSS measurement for low noise, low multi-path error. Receiver should be capable to log the data without controller in internal removable memory of GNSS receiver |
| <b>2</b>   | <b>Accuracy</b>                  |                                                                                                                                                                                                          |
| <b>2.1</b> | <b>High Precision static</b>     |                                                                                                                                                                                                          |
| 2.1(a)     | Horizontal                       | 3mm+0.1ppm                                                                                                                                                                                               |
| 2.1(b)     | Vertical                         | 3.5mm +0.4ppm                                                                                                                                                                                            |
| <b>2.2</b> | <b>PP Kinematic</b>              |                                                                                                                                                                                                          |
| 2.2(a)     | Horizontal                       | 10mm + 1 ppm                                                                                                                                                                                             |
| 2.2(b)     | Vertical                         | 20mm + 1 ppm                                                                                                                                                                                             |
| <b>2.3</b> | <b>Code accuracy</b>             | Horizontal 0.25m + 1ppm RMS                                                                                                                                                                              |
| <b>3</b>   | <b>GNSS Antenna</b>              | Multi frequency, High gain integrated antenna with sub-mm phase center repeatability.                                                                                                                    |
| <b>4</b>   | <b>General Specification</b>     |                                                                                                                                                                                                          |
| 4.1        | Bluetooth                        | Integrated Bluetooth to communicate between GPS and controller                                                                                                                                           |
| 4.2        | No: of ports                     | 1 no's RS232 ports, 1 no: of Power/Data Bluetooth port .                                                                                                                                                 |
| 4.3        | Power Port                       | 1 no: of power port as above                                                                                                                                                                             |

|      |                       |                                                                                                                 |
|------|-----------------------|-----------------------------------------------------------------------------------------------------------------|
|      |                       | with input voltage/polarity protection.                                                                         |
| 4.4  | Internal batteries    | Needs to supply 2 batteries for each receiver and needs to last for 10 hrs of field operation using 2 batteries |
| 4.5  | Operating Temperature | -40 degree C to +65 degree C                                                                                    |
| 4.6  | Storage Temperature   | -40 degree C to +70 degree C                                                                                    |
| 4.7  | Humidity              | 100% condensing and IP 68                                                                                       |
| 4.8  | Drops                 | With stands pole drop onto concrete up to 1m.                                                                   |
| 4.9  | Position Update Rate  | 20 Hz                                                                                                           |
| 4.10 | NMEA                  | Needs to support                                                                                                |
| 4.11 | Internal memory       | Minimum 1 GB                                                                                                    |
| 4.12 | Charger               | External chargers 1 for each battery should be supplied                                                         |
| 4.13 | RTK Compatibility     | Should have both integrated UHF and GSM for RTK                                                                 |

**b. Specification for Rover:- Integrated Bluetooth**

| SI NO:     | CHARACTERISTICS                  | SPECIFICATION                                                                                                                                                                                  |
|------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b>   | <b>Measurement specification</b> |                                                                                                                                                                                                |
| 1.1        | Satellite Tracking               | Should be capable of tracking GPS L1 C/A code, L1/L2 full cycle carrier, L2C and GLONASS L1, L2 and capable for the upgradation to Galileo                                                     |
| 1.2        | No of channels                   | 120 channels with Gagan capable and capable of tracking 60 satellites simultaneously                                                                                                           |
| 1.3        | Measuring Mode                   | Static, stop and Go                                                                                                                                                                            |
| 1.4        | Measurement technology           | High precision multiple correlator for GNSS measurement for low noise, low multi-path error. Receiver should be capable to log the data without controller in internal memory of GNSS receiver |
| <b>2</b>   | <b>Accuracy</b>                  |                                                                                                                                                                                                |
| <b>2.1</b> | <b>High Precision static</b>     |                                                                                                                                                                                                |
| 2.1(a)     | Horizontal                       | 3mm+0.1ppm                                                                                                                                                                                     |
| 2.1(b)     | Vertical                         | 3.5mm +0.4ppm                                                                                                                                                                                  |
| <b>2.2</b> | <b>PP Kinematic</b>              |                                                                                                                                                                                                |
| 2.2(a)     | Horizontal                       | 10mm + 1 ppm                                                                                                                                                                                   |
| 2.2(b)     | Vertical                         | 20mm + 1 ppm                                                                                                                                                                                   |
| 2.3        | Code accuracy                    | Horizontal 0.25m + 1ppm                                                                                                                                                                        |

|          |                              |                                                                                                                 |
|----------|------------------------------|-----------------------------------------------------------------------------------------------------------------|
|          |                              | RMS                                                                                                             |
| <b>3</b> | <b>GNSS Antenna</b>          | Multi frequency, High gain integrated antenna with sub-mm phase center repeatability.                           |
| <b>4</b> | <b>General Specification</b> |                                                                                                                 |
| 4.1      | Bluetooth                    | Integrated Bluetooth to communicate between GPS and controller                                                  |
| 4.2      | No: of ports                 | 1 no:s RS232 ports,1 no :of Power/Data Bluetooth port                                                           |
| 4.3      | Power Port                   | 1 no: of power port as above with input voltage/polarity protection .                                           |
| 4.4      | Internal batteries           | Needs to supply 2 batteries for each receiver and needs to last for 10 hrs of field operation using 2 batteries |
| 4.5      | Operating Temperature        | -40 degree C to +65 degree C                                                                                    |
| 4.6      | Storage Temperature          | -40 degree C to +70 degree C                                                                                    |
| 4.7      | Humidity                     | 100% condensing and IP 68                                                                                       |
| 4.8      | Drops                        | Withstands pole drop onto concrete up to 1m.                                                                    |
| 4.9      | Position Update Rate         | 20 Hz                                                                                                           |
| 4.10     | NMEA                         | Needs to support                                                                                                |
| 4.11     | Internal memory              | Minimum 1 GB                                                                                                    |
| 4.12     | RTK Compatibility            | Should have both integrated UHF and GSM for RTK                                                                 |

**c. Controller Specification:-**

| SI NO: | CHARACTERISTICS                                  | SPECIFICATION                                                                                                                                                                                              |
|--------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | <b>Controller</b>                                | Needs to supply one controller along with one set (base & rover kit)                                                                                                                                       |
| 2      | <b>Controller Requirements</b>                   | <ul style="list-style-type: none"> <li>Windows mobile version 6.5</li> <li>533 Mhz processor with 256 MB RAM</li> <li>1 GB internal Storage with micro SD memory card slot</li> <li>2 MP camera</li> </ul> |
| 3      | <b>Controller On Board Software Requirements</b> |                                                                                                                                                                                                            |
| 3.1    | Survey Style Configuration                       | The Software should allow configurable survey style for PPK, Static/Fast static & RTK etc                                                                                                                  |

|      |                                        |                                                                                                                                                                   |
|------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.2  | Multitasking                           | The software should be capable of multitasking so that multiple operations can be opened at a time, e.g: COGO, stakeout, point manager etc.                       |
| 3.3  | Co-ordinate Systems Manager            | Should have datum and projections support and needs to support GRID coordinates.                                                                                  |
| 3.4  | Colour Graphical support               | The software should have colour graphical support to visualize work while working.                                                                                |
| 3.5  | Feature Coding                         | Should support feature coding with attributes for GIS data collection. Control coding should be possible for automatic plot creation.                             |
| 3.6  | COGO                                   | Should support COGO functionality. Should be able to Key in lines, sub divide lines and creating parallel lines for staking out purpose.                          |
| 3.7  | Menu driven                            | Should be user-friendly and Menu driven for easy field operation.                                                                                                 |
| 3.8  | Data storage                           | Needs to store GNSS data collected by the PPK system.                                                                                                             |
| 3.9  | Transfer data between field and office | Should be able to email data collected in the field incase facility is available. Should be able to import and export DXF files for effective GIS support.        |
| 3.10 | Stake Out                              | Should support Graphical stakeout, not only for points but for Lines and DTM as well. Should be able to perform Real time quality control for stake out position. |
| 3.11 | Background Map                         | Should be able to accept background maps in CAD format.                                                                                                           |

**d. Processing Software specification:-**

| SI NO: | CHARACTERISTICS    | SPECIFICATION                                 |
|--------|--------------------|-----------------------------------------------|
| 1      | Operating System   | Windows high end OS<br>Currency/Better        |
| 1.1    | Importing Raw Data | Needs to import RAW data from the GPS/GLONASS |

|      |                      |                                                                                                                                        |
|------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
|      |                      | receiver as well as RINEX data and should be able to import raw data as well as precise ephemeris data via internet IGS data from net. |
| 1.2  | Baseline processing  | Should be capable of processing GPS L1 and L2 as well as GLONASS raw data.                                                             |
| 1.3  | Network Adjustments  | Should be able to perform Network adjustment using Least square adjustment principle.                                                  |
| 1.4  | Export               | Capable of Exporting the data in RINEX format as well in CAD format.                                                                   |
| 1.5  | Reporting            | Software should be capable of generating reports directly for the surveyed data.                                                       |
| 1.6  | Datum Transformation | Capable for transferring the data from one datum to another for given set of common points with or without the knowledge of datums.    |
| 1.7  | Feature coding       | Needs to support feature coding.                                                                                                       |
| 1.8  | COGO                 | Should have COGO functionality.                                                                                                        |
| 1.9  | PPK data             | Should be able to handle PPK data.                                                                                                     |
| 1.10 | Surfaces             | The software should be capable of Surface Modeling, 3D visualization and quick contouring.                                             |
| 1.11 | Google               | Google earth support and export.                                                                                                       |

**Annexure-III**

**TECHNICAL SPECIFICATIONS FOR GPS**

**Specification for high accuracy mapping grade hand held GPS for data collection with attribute value and office software for post processing and exporting/importing the data to/from GIS**

The hand held device specification must be equivalent to below mentioned specifications or higher/latest with compatible software.

| Sl No | Specification                                                                                               |
|-------|-------------------------------------------------------------------------------------------------------------|
| 1.    | Integrated high sensitivity GPS/SBAS receiver & antenna capable to record Longitude, Latitude, and Altitude |
| 2.    | Positional Accuracy (HRMS)                                                                                  |
|       | a. Less than 3 meter post processed                                                                         |
|       | b. Less than 5 meter in real time with SBAS                                                                 |
|       | c. Less than 10 m standalone GPS accuracy                                                                   |
| 3.    | Integrated GPS receiver should have minimum 48 channels and should be capable of tracking.                  |
|       | a. GPS – L1 code                                                                                            |
|       | b. SBAS                                                                                                     |
| 4.    | Processor – 800 MHz (minimum)                                                                               |
| 5.    | Memory                                                                                                      |
|       | a. 256 MB RAM (minimum)                                                                                     |
|       | b. 2 GB flash Memory (minimum)                                                                              |
|       | c. Support micro SD card up to 16 GB                                                                        |
| 6.    | Display                                                                                                     |
|       | a. 3.5 inch diagonal length                                                                                 |
|       | b. Sunlight Readable                                                                                        |
|       | c. Color and touch screen with alphanumeric                                                                 |
|       | d. 640 x 480 pixel (minimum)                                                                                |
| 7.    | Integrated Camera with LED flash                                                                            |
|       | a. 3.2 megapixel resolution (minimum)                                                                       |
|       | b. Auto focusing facility                                                                                   |
|       | c. Geo-tagging facility                                                                                     |
| 8.    | Battery                                                                                                     |
|       | a. Min 10 hours with GPS on                                                                                 |
|       | b. Removable & Rechargeable Li-Ion Battery                                                                  |
| 9.    | Communications                                                                                              |
|       | a. Integrated Voice Calling Facility (GSM)                                                                  |
|       | b. Integrated 3G Modem                                                                                      |
|       | c. Integrated Bluetooth                                                                                     |
|       | d. Integrated Wireless LAN                                                                                  |
|       | e. USB client port for data transfer                                                                        |
| 10.   | Operating System                                                                                            |
|       | a. Windows Handheld 6.5 or better                                                                           |
|       | b. English language                                                                                         |
| 11.   | Dust/Water resistance – as per IP 54 ratings or better standard                                             |
| 12.   | Weight – Should be less than 350g with battery                                                              |

|     |                                                                                                                                                                                                                                                  |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13. | Audio - Built in speaker and microphone                                                                                                                                                                                                          |
| 14. | Data logging interval – 1 second                                                                                                                                                                                                                 |
| 15. | Data logging software should be capable of logging post process data based on Arcpad OEM solution.                                                                                                                                               |
|     | a. Provide second by second global display of the number of satellites tracked, satellite geometry and differential GPS position status including current estimated accuracy and predicted post processed accuracy                               |
|     | b. Provide audio and visual warnings and alarms for loss of GPS position                                                                                                                                                                         |
|     | c. Provide in field mission planning module for daily planning of GPS data collection schedule                                                                                                                                                   |
|     | d. Provide a counter indicating the number of positions logged to the current feature.                                                                                                                                                           |
|     | e. Log data from external sensors output in ASCII format including Laser range finders for distance and bearing measurements.                                                                                                                    |
|     | f. Display map of collected features and GPS coordinates in UTM and other standard coordinate system.                                                                                                                                            |
|     | g. Provide easy to use zoom in, zoom out, pan, autopan, select, query, measure, search, and filter capabilities for flexible and powerful map display.                                                                                           |
|     | h. Provide clear map symbology and coloring, including GPS position, navigation targets, and start points.                                                                                                                                       |
|     | i. Display background layers including JPEG, JPEG 2000, TIFF, MrSID, ECW, BMP, SHP etc.                                                                                                                                                          |
|     | j. Display multiple background layers concurrently in the map window.                                                                                                                                                                            |
|     | k. Collecting point, line, and polygon with attribute                                                                                                                                                                                            |
|     | l. Support customized user interfaces allowing field workers to see the overview of a data form more clearly, avoiding confusion and guiding them through only required form sections, speeding up form completion without sacrificing accuracy. |
|     | m. Support point offsets including distance-bearing, bearing-bearing, triple bearing, distance-distance and triple distance offset types.                                                                                                        |
|     | n. Include time saving features for attribute entry including repeat functions, default values, menu pick lists, auto-incrementing, and auto generation of date and time attributes.                                                             |
|     | o. Support for digitizing of points, lines or areas for simple feature capture when GPS is not available.                                                                                                                                        |
|     | p. Should collect raw data for post-processing the data for improving GPS accuracy.                                                                                                                                                              |
|     | q. Support for logging data directly to a removable storage card                                                                                                                                                                                 |
|     | r. Allow configuration of navigation information including distance, bearing, heading, velocity, go east, go north, go up, go down, ETA and time to go, cross track error, altitude and turn direction.                                          |
|     | s. Provide easy to follow arrow or guidance indicators for intuitive navigation to a target.                                                                                                                                                     |
|     | t. Support for waypoint upload and display.                                                                                                                                                                                                      |
|     | u. Office post process software based on Arc GIS, Desktop , edition , one license.                                                                                                                                                               |
| 16. | Accessories to be supplied                                                                                                                                                                                                                       |
|     | a) USB cable for data transfer                                                                                                                                                                                                                   |
|     | b) Stylus with lanyard for touch screen operation                                                                                                                                                                                                |
|     | c) Wrist lanyard for the handheld unit                                                                                                                                                                                                           |
|     | d) Li-Ion battery (rechargeable)                                                                                                                                                                                                                 |
|     | e) AC Power Supply                                                                                                                                                                                                                               |
| 17. | Warranty of preferably 2years and extended warranty of 1 year for the device.                                                                                                                                                                    |
| 18. | Continues training for departmental officers atleast for 5 yr's with a minimum of 25% in each yr                                                                                                                                                 |

**ANNEXURE-4**

**WARRANTY CERTIFICATE**

We warrant that everything to be supplied by us hereunder shall be brand new, free from all defects and faults in material, workmanship and manufacture and shall be of the highest grade & quality and consistent with the established and generally accepted standards for material of the type ordered, shall be in full conformity with the specifications/drawings of samples if any and shall operate properly. We shall be fully responsible for its efficient operation.

In case of any latent defect or inconsistency due to poor manufacturing/repair & overhaul of the equipment/instrument, or defective supply not conforming to the specifications if observed at the time of final inspection and thereafter within 3 years from the date of acceptance, we unconditionally undertake the guarantee to maintain/repair/supply free of cost the defective items/items that go out of order up to the final destination and during the maintenance period, and the inland expenses borne by the indenter, will be at our cost.

The warranty shall survive inspection and payment for and acceptance of the goods but shall expire (except in respect of complaints of which the contractor has been notified prior to such date) 3 years after their successful acceptance by the purchaser.

SEAL of manufacturer

Date.....

Signature .....

Name & address of manufacturer

**ANNEXURE-5:**

**AGREEMENT**

An agreement made this ..... day of .....  
..... BETWEEN.....

.....  
.....  
(hereinafter called the contractor which expression shall include his legal representatives) of the one part and the Governor of Karnataka (hereinafter called the Government) of the other part and WHEREBY the contractor agrees to supply to the ..... Department of Mines and geology, Government of Karnataka (hereinafter called 'Department') the under mentioned articles at cost mentioned against them:

<<Insert a table here containing the items, quantity & contract price >> and on the terms and conditions hereinafter mentioned:-

- a) That all stores shall be delivered free at ..... by .....
- b) that all stores supplied shall be new and of good quality and in exact accordance with the sample submitted.
- c) that the inspection of the stores shall be carried out by the ..... himself or by a Gazetted Officer deputed by him at the place mentioned in para (a) above and that the stores rejected must be removed by the contractor within a week from the date of rejection. All stores not accepted shall lie at the risk of the contractor. If not removed within the period specified above the .....  
shall have the right to dispose of such stores as he thinks fit at the risk of the contractor and on his account or if he prefers to charge him rent for the space occupied by same.
- d) that the time of delivery stated above shall be of the essence of the contract and should the

contractor fail to deliver the whole/any part of the stores within the period specified in clause (a) and as per the sample the ..... shall have the right to forfeit the deposit mentioned in clause (f) and to purchase the stores elsewhere which the contractor has failed to deliver as aforesaid at the expenses of the contractor and the contractor will be liable to pay such further sum as will be sufficient to meet the difference of cost between the rates tendered and those at which the purchases are actually made should they be higher. This is without prejudice to action being taken under clause (h) thereof.

e) that the ...Department..... shall have full power to reject the whole or any part of the stores which to the true intent and meaning is not in exact accordance with the approved sample and that the decision of the Department shall be final.

f) that the payments to the bidder will be made as follows

100% payment shall be made within 60 days of completion of acceptance testing of the equipment. The successful bidder has to provide the Bank Account Details for Payment through treasury cheque only.

The vendor to furnish 3 years unconditional warranty from the OEM. This warranty will not be affected; even if the supplier's bank guarantee is forfeited for default in execution of warranties. In other words the OEM would stand guarantee for the repair/service of the instrument even if the local supplier is not in a position to repair/service the instrument. The warranty from OEM to include the transportation cost from the site to the authorized service center and back to the site, in case the local supplier has not discharged his contractual obligation within the timelines as per the RFP.

In addition, the successful bidder shall provide a bank guarantee of 15% of the value of the total contract valid for three years. The bidder to give bank guarantee in the denominations of 5%, 2% and 8% for a total of 15 % value. The 5% Bank Guarantee will be valid for 1 year, the 2% Bank Guarantee will be valid for 2 years, the 8% Bank Guarantee will be valid for 3 years. At the end of 1st year the bank guarantee for 5% will be returned, and at the end of 2nd year the bank guarantee for 2% will be returned and the at the end of 3rd year the bank guarantee for 8% will be returned, in case there is no complaint on repair / service. In case of any penalties, that need to

be imposed as per the RFP, the same will be deducted and the Bank Guarantee will be returned at the end of first year. So also, at the end of the second year penalties if any, as specified in the RFP will be deducted and the Bank Guarantee will be returned, and at the end of the third year penalties if any, as specified in the RFP will be deducted and the Bank Guarantee will be returned. The penalty provisions as mentioned in Section 5 (c) and 5(d) will continue.

In case the penalty amount is more than the Bank guarantee amount, then the bank guarantee will be adjusted first and a notice to pay the remaining amount will be served to the supplier.

In case the supplier fails to pay the remaining penalty amount after bank guarantee is adjusted, and after serving of notice, the department will approach the civil court for recovery. City of Bangalore will be the jurisdiction for any civil dispute.

- g) That the contractor will execute a Performance Guarantee for 15% of the cost of the equipments as security for compliance with the terms and condition of this contract.
- h) That the contractor will be entirely responsible for the execution of this contract in all respect in accordance with the conditions of this contract and shall not assign or sub-let the same.
- i) That the contractor undertakes the guarantee to maintain/repair/supply the defective items/items that go out of order, free of cost during the maintenance period of 3 years, up to the final destination.
- j) If the contractor becomes insolvent or he or his Agent offers any bribe in connection with the contract or the contractor fails to observe or perform any condition of this contract, then notwithstanding any previous waiver of such default or action being taken under any other clause hereof the ....., may on behalf of the Government terminate the contract and forfeit the said deposit and recover from the contractor any loss suffered by the Government on account of the contract being terminated.

In Witness whereof the parties have hereunto set their hands the day and year first above written.

Signed by the said contractor .....

In the presence of:-

1<sup>st</sup> Witness

Address

2<sup>nd</sup> Witness

Address

Signed by the said for and on behalf of  
the Governor of Karnataka

In the Presence of:-

1<sup>st</sup> Witness

Address

2<sup>nd</sup> Witness

Address

\*\*\* End of Document\*\*\*

**DIRECTOR**